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EXAMINER

YIGDALL, MICHAEL J

ART UNIT	PAPER NUMBER
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2122

10

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,425

Applicant(s)

KRUEGER ET AL.

Examiner

Michael J. Yigdal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-33 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This Office action is in reply to applicant's response and amendment dated 21 January 2004. Claims 1-33 remain pending.

Drawings

2. Acknowledgment is made of the replacement drawing sheets filed on 21 January 2004. The objection to the drawings is withdrawn.

Claim Objections

3. The objection to claim 7 regarding the minor informalities is withdrawn in view of the amendment.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 26-33 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,026,235 to Shaughnessy, as set forth in the Office action of 22 October 2003 (Paper No. 8).

With respect to amended claim 26, Shaughnessy discloses a method for intercepting a software call to a function contained in a dynamically linked library (see column 4, lines 14-27) comprising the steps of:

(a) loading an executable program into memory (see column 5, lines 50-53, which shows loading applications into memory for execution);

(b) obtaining from an operating system by an intercepting program the address of an executable program (see column 9, lines 11-19, which shows obtaining address information from an executable program; note that determining the address of each and every function of a program is, in effect, determining the address of that program);

(c) locating in a header of the executable program a list of libraries and functions called by the executable program (see step 301 in FIG. 3, and column 10, lines 19-27; note that the import table of an executable program is considered part of a header);

(d) substituting a function reference in an import table of the executable program with a reference to a function in a library of the intercepting program (see step 303 in FIG. 3, and column 12, lines 52-55, which shows replacing function references in the executable with the addresses of stub functions); and

(e) storing said function reference in an internal memory structure (see step 302 in FIG. 3, and column 11, lines 31-34, which shows building tables of all function references; see also column 11, lines 47-62, which shows the memory structure used for the tables).

With respect to original claims 27-33, the grounds of rejection set forth in a prior Office action are maintained. See the explanations provided in the Office action of 22 October 2003 (Paper No. 8).

Claim Rejections - 35 USC § 103

6. Claims 1, 2, 5 and 25 are now rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,185,681 to Zizzi in view of U.S. Pat. No. 6,611,878 to De Armas et al. (hereinafter De Armas) in view of U.S. Pat. No. 6,637,023 to Ginsberg.

With respect to original claim 1, Zizzi discloses a method for associating the activity of an application with the graphical display of the file on a screen (see the title and abstract).

Although Zizzi shows trapping event messages related to opening and closing documents sent to or from an application (see column 8, lines 32-42, and column 9, lines 44-54), for the purpose of enabling transparent document manipulation (see the title and abstract), Zizzi does not expressly disclose the steps of:

- (a) loading by an operating system an executable code of a message monitoring program adapted to monitoring a message sent by an operating system to a document display window;

- (b) establishing by the message monitoring program a system-wide window hook using available operating system API functions, said system-wide window hook associated with one or more functions in a library of said message monitoring program;

- (c) loading the message monitoring program library into the memory space of an application program, said application having been newly started and having an import table and a newly created window;

- (d) fixing the import table of the application with addresses of functions from the message monitoring program library; and

- (e) substituting the application's main window function with a message monitoring program window function.

However, De Armas discloses step (a) above in terms of loading a program that monitors and intercepts all messages sent by an operating system to an application window (see column 5, lines 26-49).

De Armas further discloses step (b) above (see column 7, lines 56-63, which shows using an operating system API function to establish a system-wide hook for monitoring and intercepting messages).

De Armas further discloses steps (c) and (e) above by first locating the memory space of an application with the address of its main window function, and then replacing this address with a pointer to a substitute window function from the program library of the monitoring program (see column 8, lines 35-54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi with the steps taught by De Armas, for the purpose of seamlessly integrating new functionality into an existing program (see De Armas, column 2, lines 40-44), such as transparent encryption and decryption in a document management application (see Zizzi, title and abstract).

Although De Armas discloses fixing the pointer to the application's window function with the address of a function from the monitoring program library (see column 8, lines 35-54), the combination of Zizzi and De Armas does not expressly disclose an import table as recited in step (d) above.

However, Ginsberg discloses loading an application into RAM, including its import table, and modifying the import table in RAM by replacing references to a function library with new addresses (see steps 408 and 410 in FIG. 5, and column 5, lines 30-42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi and De Armas with the steps taught by Ginsberg, for

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the purpose of updating an application without replacing the entire program (see Ginsberg, column 1, lines 40-48).

With respect to original claim 2, the combination of Zizzi, De Armas and Ginsberg further discloses creating a key window when an application is started, said key window adapted to receive a message when a file is opened and closed (see De Armas, column 9, lines 5-17, which shows creating and using a surrogate window that receives messages from an application; note that any message sent from the operating system to the application will be routed to the surrogate window, including messages for opening and closing files).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi with the steps taught by De Armas, for the purpose of seamlessly integrating new functionality into an existing program (see De Armas, column 2, lines 40-44), such as transparent encryption and decryption in a document management application (see Zizzi, title and abstract).

With respect to original claim 5, the combination of Zizzi, De Armas and Ginsberg further discloses, upon receipt of a document window destroy message by a document's notify window, checking for the existence of a child notify window associated with a file that was opened in association with said document, and acting upon said associated file before destroying said document window (see Zizzi, column 8, lines 32-42, which shows receiving event messages, including the "close" message that would destroy a document window; see also column 8, lines 59-67, and column 9, lines 1-7, which show checking whether the document

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window, a client or child of the document management system, should be acted upon; see also column 9, lines 8-16 and 32-38, which shows acting upon the file before it is closed).

With respect to original claim 25, the combination of Zizzi, De Armas and Ginsberg further discloses monitoring by the message monitoring program window function the creating of a document child window (see De Armas, column 5, lines 26-49, which shows a program that monitors and intercepts all messages sent by an operating system to an application window; note that all messages are intercepted, including those for creating document child windows).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi with the steps taught by De Armas, for the purpose of seamlessly integrating new functionality into an existing program (see De Armas, column 2, lines 40-44), such as transparent encryption and decryption in a document management application (see Zizzi, title and abstract).

7. Claims 3 and 4 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Zizzi in view of De Armas in view of Ginsberg, as applied to claims 2 and 1 above, respectively, and further in view of U.S. Pat. No. 6,604,150 to Gebhart et al. (hereinafter Gebhart).

With respect to original claim 3, the combination of Zizzi, De Armas and Ginsberg does not expressly disclose:

- (a) sending a message to the key window when a file is opened;
- (b) creating a child notify window associated with said file; and
- (c) creating a notify window as a child window of a document window associated with said file.

However, Gebhart discloses steps (a), (b) and (c) above (see FIG. 5B, which shows sending messages to a key window, such as an open file message from an application; see also FIGS. 1 and 2, and column 5, lines 58-64, which show creating a dialog or notify window as a child window of a document window), for the purpose of integrating application extensions into a graphical user interface (see the title and abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas and Ginsberg with the steps taught by Gebhart, for the purpose of integrating application extensions into a graphical user interface.

With respect to original claim 4, the combination of Zizzi, De Armas and Ginsberg does not expressly disclose:

(a) creating a notify window when a document window is created, wherein the notify window is a child window of the document window; and

(b) receiving by the notify window a message from the operating system when the parent document window is activated by either the application program or by the action of a user.

However, Gebhart discloses steps (a) and (b) above (see FIGS. 1 and 2, and column 5, lines 58-64, which show creating a dialog or notify window as a child window of a document window; see also column 6, lines 3-30, which shows that the dialog or notify window receives messages from the application and from the actions of a user), for the purpose of integrating application extensions into a graphical user interface (see the title and abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas and Ginsberg with the steps taught by Gebhart, for the purpose of integrating application extensions into a graphical user interface.

8. Claims 6-9 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Zizzi in view of De Armas in view of Ginsberg, as applied to claim 5 above, and further in view of U.S. Pat. No. 5,699,428 to McDonnal et al. (hereinafter McDonnal).

With respect to original claim 6, although the combination of Zizzi, De Armas and Ginsberg further discloses checking a file with a set of tests to determine whether or not the document should be acted upon (see Zizzi, column 8, lines 43-48), the combination does not expressly disclose the limitation comprising a user of an application specifying one or more rules to the application, each said rule indicating an action to be taken on said associated file before destroying said document window.

However, McDonnal discloses the limitation above in terms of a rule file that is used to define the action to be taken on a document based on the user and other parameters (see column 8, lines 35-49), for the purpose of enabling automatic decryption and encryption in response to file open and close events (see the abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas and Ginsberg with the features taught by McDonnal, for the purpose of enabling automatic rule-based encryption and decryption in response to file open and close events.

With respect to amended claim 7, the combination of Zizzi, De Armas, Ginsberg and McDonnal further discloses the limitation wherein an action includes encrypting said associated file, wherein encrypting comprises:

(a) creating a new file containing a template of the same format as said associated file, said new file including a header, wherein said header is not encrypted (see McDonnal, column 28, lines 51-55, which shows creating a new file based on an associated file; see also column 29, lines 7-12, which shows including a security label in the new file; see also column 17, lines 48-49, which shows that the security label is a header);

(b) copying to the new file a document summary in readable form (see McDonnal, column 18, lines 7-18, which shows copying summary information about a document to its security label, including the type of encryption algorithm used on the document and a list of authorized users);

(c) copying to the new file visual indicia representing that the file is encrypted (see McDonnal, column 17, lines 64-67, which shows that the presence of a security label indicates that a file is encrypted);

(d) copying encrypted data from the associated file to the new file as a named stream, said encrypted data having a beginning and a length (see McDonnal, column 29, lines 12-18, which shows copying encrypted data to a new file from an associated file; note that this data inherently has a beginning and a length); and

(e) writing a code to a substitute stream to prevent the new file from being written over by a user (see McDonnal, column 19, lines 42-55, which shows using a unique, substitute file name so that data is not overwritten).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas and Ginsberg with the features taught by

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McDonnal, for the purpose of enabling automatic rule-based encryption and decryption in response to file open and close events (see McDonnal, abstract).

With respect to original claim 8, the combination of Zizzi, De Armas, Ginsberg and McDonnal further discloses the step of including in the header a flag indicative of the type of encryption used on the associated file (see McDonnal, column 18, lines 7-12; see also Zizzi, column 3, lines 27-51, which shows several types of encryption).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas and Ginsberg with the features taught by McDonnal, for the purpose of enabling automatic rule-based encryption and decryption in response to file open and close events (see McDonnal, abstract).

With respect to original claim 9, the combination of Zizzi, De Armas, Ginsberg and McDonnal further discloses the step of including in the header a flag indicative of a handling procedure to be used on the associated file (see McDonnal, column 18, lines 30-35, which shows an encryption key stored in the security label of a file, which is needed to determine the procedure for handling the file; see also Zizzi, column 9, lines 17-22, which shows obtaining an encryption key associated with a document, establishing the procedure to be used on the file).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas and Ginsberg with the features taught by McDonnal, for the purpose of enabling automatic rule-based encryption and decryption in response to file open and close events (see McDonnal, abstract).

9. Claims 10 and 11 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Zizzi in view of De Armas in view of Ginsberg in view of McDonnal, as applied to claim 7 above, and further in view of U.S. Pat. No. 5,757,908 to Cooper et al. (hereinafter Cooper).

With respect to original claim 10, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the step of loading data from the encrypted file into a memory block containing other random data, said memory block having a beginning, wherein an offset from the beginning of the memory block of the data from the encrypted file changes each time the message monitoring program executable code is loaded.

However, Cooper discloses the step above for the purpose of securing access to files (see column 3, lines 50-63, which shows that data from an encrypted file is copied to memory; note that the memory inherently contains other random data, and that the offset from the beginning of the memory to the location of the encrypted data inherently changes).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the features taught by Cooper, for the purpose of securing access to files.

With respect to original claim 11, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the step of including in the header a flag indicative of the length of the encrypted data, and a flag that allows the message monitoring program to search for the beginning of the encrypted data.

However, Cooper discloses the step above in terms of an encryption header in a system for securing files (see FIG. 24 and column 17, lines 17-34, which shows a header field for the

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offset to a side file, i.e. a flag indicating the beginning of encrypted data; see also FIG. 26 and column 18, lines 57-65, which shows a header field for the length of a side file, i.e. a flag indicating the length of encrypted data), for the purpose of keeping the size of the encrypted file the same as the size of the original file (see column 17, lines 12-16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the encryption header taught by Cooper, for the purpose of maintaining a particular file size.

10. Claims 14, 16 and 23 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Zizzi in view of De Armas in view of Ginsberg in view of McDonnal, as applied to claim 6 above, and further in view of U.S. Pat. No. 6,230,310 to Arrouye et al. (hereinafter Arrouye).

With respect to original claim 14, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes compressing said associated file.

However, Arrouye discloses the limitation above (see block 30 in FIG. 1, and column 4, lines 38-51, which show compressing and decompressing files) in a system for transparently transforming objects so that they can be used by applications (see the title and abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the feature taught by Arrouye, so that the application can use non-native files, including those that require compression or decompression.

With respect to original claim 16, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes converting said associated file into another file format.

However, Arrouye discloses the limitation above (see block 26 in FIG. 1, and column 4, lines 5-21, which show converting files to other formats) in a system for transparently transforming objects so that they can be used by applications (see the title and abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the feature taught by Arrouye, so that the application can use non-native files, including those that must be converted from another format.

With respect to original claim 23, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes storing said associated file content in a remote location, and storing a reference of said associated file locally.

However, Arrouye discloses the limitation above (see block 28 in FIG. 1, and column 4, lines 22-37, which show retrieving files from remote locations) in a system for transparently transforming objects so that they can be used by applications (see the title and abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the feature taught by Arrouye, so that the application can use non-native files, including those stored at remote locations.

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11. Claims 15, 18, 20 and 24 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Zizzi in view of De Armas in view of Ginsberg in view of McDonnal, as applied to claim 6 above, and further in view of U.S. Pat. No. 5,884,246 to Boucher et al. (hereinafter Boucher).

With respect to original claim 15, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes translating said associated file into another language.

However, Boucher discloses the limitation above in terms of a system for transparently translating messages into other languages (see column 2, lines 7-15), for the purpose of enhancing communications in multilingual environments (see column 1, lines 60-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the translation feature taught by Boucher, for the purpose of enhancing communications in multilingual environments.

With respect to original claim 18, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes altering text in said associated file.

However, Boucher discloses the limitation above in terms of a system for transparently translating messages into other languages (see column 12, lines 17-26, which shows altering text in the message or file by removing certain portions), for the purpose of enhancing communications in multilingual environments (see column 1, lines 60-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the text-altering feature taught by Boucher, for the purpose of enhancing communications in multilingual environments.

With respect to original claim 20, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes spell checking said associated file.

However, Boucher discloses the limitation above in terms of a system for transparently translating messages into other languages (see column 12, lines 15-17, which shows spell checking the message or file) for the purpose of enhancing communications in multilingual environments (see column 1, lines 60-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the spell-checking feature taught by Boucher, for the purpose of enhancing communications in multilingual environments.

With respect to original claim 24, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes grammar checking said associated file.

However, Boucher discloses the limitation above in terms of a system for transparently translating messages into other languages (see column 12, lines 15-17, which shows grammar

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checking the message or file) for the purpose of enhancing communications in multilingual environments (see column 1, lines 60-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the grammar-checking feature taught by Boucher, for the purpose of enhancing communications in multilingual environments.

12. Claims 17 and 19 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Zizzi in view of De Armas in view of Ginsberg in view of McDonnal, as applied to claim 6 above, and further in view of U.S. Pat. No. 5,956,481 to Walsh et al. (hereinafter Walsh).

With respect to original claim 17, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes searching for a virus in said associated file.

However, Walsh discloses the limitation above in terms of a virus protection system (see column 10, lines 17-34, which shows that documents are scanned when a file event is detected), used to warn users about potential viruses (see column 10, lines 35-42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the virus detection features taught by Walsh, for the purpose of warning users about potential viruses.

With respect to original claim 19, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes changing or adding an optional setting to said associated file.

However, Walsh discloses the limitation above in terms of a virus protection system (see column 11, lines 16-26, which shows changing the read only setting of a file), used to prevent the spread of viruses (see column 11, lines 26-28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the file attribute features taught by Walsh, for the purpose of preventing the spread of viruses.

13. Claims 21 and 22 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Zizzi in view of De Armas in view of Ginsberg in view of McDonnal as applied to claim 6 above, and further in view of U.S. Pat. No. 6,629,109 to Koshisaka.

With respect to original claim 21, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes creating a backup of said associated file.

However, Koshisaka discloses the limitation above in terms of monitoring system messages and generating backup files (see column 2, lines 5-21), for the purpose of enabling revision and backup management in applications that do not already have such features (see column 1, lines 58-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the features taught by Koshisaka, in order to integrate revision and backup management into the application.

With respect to original claim 22, the combination of Zizzi, De Armas, Ginsberg and McDonnal does not expressly disclose the limitation wherein an action includes versioning said associated file under a different name or stream each time said associated file is saved.

However, Koshisaka discloses the limitation above in terms of monitoring system messages and generating backup files (see column 2, lines 5-21; see also FIG. 4, which shows that different file names are used when files are manipulated), for the purpose of enabling revision and backup management in applications that do not already have such features (see column 1, lines 58-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Zizzi, De Armas, Ginsberg and McDonnal with the features taught by Koshisaka, in order to integrate revision and backup management into the application.

14. Claims 26-33 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Shaughnessy in view of Ginsberg.

With respect to amended claim 26, Shaughnessy discloses a method for intercepting a software call to a function contained in a dynamically linked library (see column 4, lines 14-27) comprising the steps of:

(a) loading an executable program into memory (see column 5, lines 50-53, which shows loading applications into memory for execution);

(b) obtaining from an operating system by an intercepting program the address of an executable program (see column 9, lines 11-19, which shows obtaining address information from

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an executable program; note that determining the address of each and every function of a program is, in effect, determining the address of that program);

(c) locating in a header of the executable program a list of libraries and functions called by the executable program (see step 301 in FIG. 3, and column 10, lines 19-27; note that the import table of an executable program is considered part of a header);

(d) substituting a function reference in an import table of the executable program with a reference to a function in a library of the intercepting program (see step 303 in FIG. 3, and column 12, lines 52-55, which shows replacing function references in the executable with the addresses of stub functions); and

(e) storing said function reference in an internal memory structure (see step 302 in FIG. 3, and column 11, lines 31-34, which shows building tables of all function references; see also column 11, lines 47-62, which shows the memory structure used for the tables).

Furthermore, Ginsberg discloses loading an application into RAM, including its import table, and modifying the import table in RAM by replacing references to a function library with new addresses (see steps 408 and 410 in FIG. 5, and column 5, lines 30-42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to enhance the method of Shaughnessy, which is for monitoring an application by updating its function references (see Shaughnessy, FIG. 3, title and abstract), with the steps expressly taught by Ginsberg, for the purpose of updating the application without replacing the entire program (see Ginsberg, column 1, lines 40-48).

With respect to original claims 27-33, see the reasoning set forth in paragraph 5 above.

Allowable Subject Matter

15. Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

16. Applicant's arguments with respect to claims 1-33 are moot in view of the new ground(s) of rejection.

With respect to claims 1-25, applicant contends that neither Zizzi nor De Armas teach or suggest fixing the import table of the application with addresses of functions from a message monitoring program library (see page 15, second paragraph). However, the newly cited Ginsberg reference discloses loading an application and its import table into RAM, and modifying the import table in RAM by replacing references to a function library with new addresses (see steps 408 and 410 in FIG. 5, and column 5, lines 30-42), as set forth above.

Applicant also contends that neither Zizzi nor De Armas teach or suggest substituting the application's main window function with a message monitoring window function (see page 15, second paragraph). However, as noted above, De Armas expressly discloses this limitation in terms of replacing the address of a program's window procedure with a pointer to a substitute window procedure from a library of the monitoring program (see column 8, lines 35-54).

With respect to claims 26-33, applicant contends that the claimed invention differs from the Shaughnessy reference in that the executable file itself is not modified by the invention, and

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that Shaughnessy neither teaches nor suggests altering a memory-resident import table (see page 12, last paragraph to page 13, first paragraph). However, the newly cited Ginsberg reference discloses loading an application and its import table into RAM, and modifying the import table in RAM by replacing references to a function library with new addresses (see steps 408 and 410 in FIG. 5, and column 5, lines 30-42), as set forth above.

Furthermore, the plain language of amended claim 26 does not exclude the teachings of Shaughnessy, which show loading an executable program into memory (see column 5, lines 50-53) as well as substituting function references in the import table of such a program (see step 303 in FIG. 3 and column 12, lines 52-55). As well, the storage device on which the executable files of Shaughnessy reside is considered to be a form of memory, and therefore any modifications made to the import tables necessarily occur in memory.

Applicant also contends that column 9, lines 11-19 in the Shaughnessy reference does not teach or suggest obtaining the address of an executable program from an operating system. However, as set forth above, Shaughnessy does disclose obtaining address information associated with an executable program (see column 9, lines 11-19). Determining the memory address of each and every function of a program is functionally equivalent to determining the address of that program. It is further noted that the address of the program is inherently obtained in some manner in order to find and then alter the import table, as is done by Shaughnessy (see step 303 in FIG. 3).

17. Applicant's arguments with respect to claims 1, 2, 5 and 25 have been fully considered but they are not persuasive, as discussed below.

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18. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (see page 13, last paragraph), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

19. In response to applicant's argument that there is no suggestion to combine the references (see page 14, first paragraph), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Zizzi discloses a method for enabling transparent encryption and decryption in a document management application (see Zizzi, title and abstract). De Armas then teaches message monitoring steps not expressly disclosed by Zizzi, for the purpose of seamlessly integrating new functionality into an existing program (see De Armas, column 2, lines 40-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of Zizzi with the steps taught by De Armas.

20. In response to applicant's argument that the references fail to show certain features of applicant's invention (see page 14, second paragraph to page 15, first paragraph), it is noted that the features upon which applicant relies (i.e., intercepting hard drive accesses at a lower level to provide stronger encryption) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Yigdall whose telephone number is (703) 305-0352. The examiner can normally be reached on Monday through Friday from 8:00am to 4:30pm.

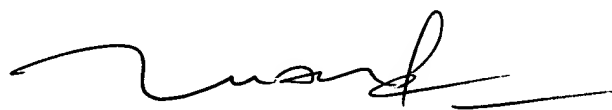
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MY

Michael J. Yigdall
Examiner
Art Unit 2122

mjy
March 22, 2004


TUAN DAM
SUPERVISORY PATENT EXAMINER